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THE ZOOLOGIST:

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OF

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AND

JOURNAL FOR RECORDING FACTS AND ANECDOTES

RELATING TO

QUADRUPEDS, BIRDS, REPTILES, FISHES, ANNELIDES,

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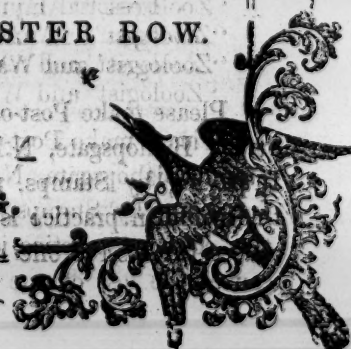
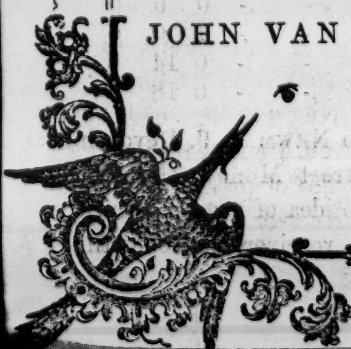
MIGRATIONS, NESTS AND YOUNG.

No. CCX.

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TO CORRESPONDENTS.

PREPAYMENT.

I beg to remind my readers that the Subscription for 1859 has expired, and that the prepayment for 1860 is now due, and must be made before the end of the present year. No plan ever gave so great satisfaction to all parties as this of prepayment; all complaints of irregularity in delivery have ceased, and every Subscriber has his copy on or before the 1st of each month. I must, however, remind my Subscribers that those prepaying for only a portion of the year have no claim to double numbers; those paying for the twelve months in advance are entitled to double numbers, however frequently they may occur.

I avail myself of this opportunity to thank most heartily those gentlemen whose constant co-operation has contributed so largely to bring the 'ZOOLOGIST' to its present state of excellence, as well as favour with the public.

I wish also to beg my Subscribers to observe that the number of pages in the 'ZOOLOGIST' has been, during the last two years, increased from thirty-two to forty pages, and that this is totally independent of double numbers, which are invariably given to prepaid Subscribers, without extra charge: thus the periodical has not only increased in bulk, but has comparatively diminished in price. This alteration was promised two years back, but made conditional on the increased sale: I have determined that every addition of one hundred and fifty Subscribers shall be accompanied by an addition of eight pages to the bulk of each number, the matter being always in hand to meet such an increase in bulk. It cannot but be observed that the reviewing department, so pleasant to myself and so acceptable to my readers, has been virtually, although not avowedly, abandoned. If Subscribers would exert themselves to obtain additional Subscribers, there would be no difficulty whatever in adding a few pages of reviews every month.

Mr. Stainton's 'Entomologist's Annual' will be ready in a few days, and will be sent carriage free to every one who remits 2s. 6d. in prepayment.

Mr. Frederick Smith, of the British Museum, has just published a Museum Catalogue of British Fossorial Hymenoptera, Formicidæ and Vespidae, with six admirable outline plates: the price is 6s., and it should be in the hands of every Entomologist.

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Mr. Westwood stated that he had himself made nearly the same observations as Mr. Stone, on the habits of the perfect *Sitaris*, many years ago, in a village, in Oxfordshire, when he had found it usually abundant, and had succeeded in rearing the larvae from the eggs laid by the females. He had since been favoured, by Madame Audouin, with permission to make copies of the extensive series of observations made on the habits and transformations of the same species, by the late lamented Prof. Audouin, which he promised to lay before the Society at a future opportunity.

Part 3 of the current volume of the Society's 'Transactions' was on the table.—
E. S.

Note on the Paper on Bovine Animals.—In reading a very interesting paper on the "Species of Bovine Animals" in the 'Zoologist,' I found a statement (Zool. 6553) to the effect that buffaloes are the only domestic cattle over extensive regions of the South of China, and are used for the purpose of tilling the ground. I have no doubt it would afford some information to your readers to state that in Amoy and its neighbourhood the small yellow cow is chiefly used for ploughing the wet paddy fields. The buffalo is mostly kept for its milk, which article the natives in the neighbouring country of Chang-chow consume largely, though the Amoyites will not touch it. It is the only milk the Europeans drink here, and is much richer and more unwholesome than cow's milk. Buffaloes are slaughtered as well as cows for the market, but the flesh of the former somewhat resembles horse-flesh, and is far inferior to that of the latter, which in winter often puts us in mind of good old English roast beef. The Chinese here seem to have little partiality for beef, and it is therefore the cheapest meat procurable. The yellow cow is rather a timid animal, and always turns tail when a stranger approaches. Not so the buffalo: this brute faces you and snuffs at you, and has often been known to chase a European for a considerable distance. The only two-legged animals it seems to humour are the black magualis (*Acridotheres cristatellus*, Linn.) and the russet egrets (*Bupluris russator*, Temm.) I have often seen several of these perched on the backs of buffaloes who were wallowing in the water or quietly grazing. Sometimes, in catching a fly off the sides of the buffalo, the egret would give the brute a sharp "dig," but the buffalo would merely turn his head round, and then continue grazing as before.—Robert Swinhoe; British Consulate, Amoy, August 1, 1859.

Whales in the Indian Seas.—At the meeting of the Asiatic Society, held on the 7th of September, the curator read the introductory portion of a paper "On the Great Rorqual of the Indian Ocean, with Notices of other Species of Cetacea." He remarked that the gigantic whales (*Balanidae*) of the inter-tropical regions of the ocean had been little studied; that the existence of them was even ignored by Dr. J. E. Gray, of the British Museum, in his elaborate Synopsis of the known species of Cetacea, published in the Zoology of the celebrated antarctic voyage of H.M.S. Erebus and Terror (1846); but that not only were such whales, attaining enormous dimensions, familiarly known to navigators, but there happened to be a satisfactory notice of them at the northern extremity of the Arabian Sea more than two thousand years ago, in the narrative of the famous voyage of Nearchus, who commanded Alexander's fleet that sailed from



the Indus to the Persian Gulf, B.C. 327. Not only did the ancient navigator encounter a troop of these huge animals, but it would appear that they were at that time not unfrequently stranded on the coast of Mekran, where the Ichthyophagi of that treeless country used their bones for building purposes. From that distant period until quite recently Mr. Blyth had been unable to discover a single record of the occurrence of great whales in the Indian Seas north of the equator; but they were, nevertheless, so far from being rare, indeed the sight of a shoal of these huge animals was so familiar a spectacle to mariners, that to this very circumstance—combined with the fact of their being of no commercial value—might be attributed the extraordinary absence of such memorial. Had the appearance of a shoal (or "school," in nautical language) of enormous whales in the Arabian Sea or Bay of Bengal been a phenomenon of unusual occurrence, it would unquestionably have been recorded from time to time. From reliable information obtained, Mr. Blyth was enabled to state, with confidence, that these huge animals are still occasionally observed within the Persian Gulf,—rarely, however, in shoals, but generally one or two stragglers at a time; that just now a particular individual "cruising" about the neighbourhood of Muskat, has been familiarly known to persons visiting that port for some years past. It might therefore be concluded that to this time a shoal of them may now and then be seen off the coast of Mekran, at the head of the Arabian Sea a little further to the east, where Nearchus and his fleet encountered them; and that a carcass may still occasionally be stranded on the same rarely-visited coast, and the bones even yet be applied to like purposes by the scanty fish-eating population of that inhospitable region. An interesting account was cited, from the 'Friend of India' of the time, of a whale (described to have been ninety feet in length and forty-two feet in diameter) which was stranded alive on the west side of Maskal Island, on the Chittagong coast (in about lat. 21° north), on the 15th of August, 1842. Another, stated to have been eighty-four feet long, was thrown up dead upon Juggoo or Amherst Islet, south of Ramri and east of Cheduba, on the Arakan coast (about 2° further south), during the rainy season of 1851. A few of the bones of this individual were collected in the following year by the present Major T. P. Sparkes, then Assistant-Commissioner of Ramri, and were presented by him for the Asiatic Society's Museum, where they are now exhibited: they consist of the two rami of the lower jaw, which are within less than two inches of twenty-one feet in length, a rib, the left radius, and five vertebræ. The proportional length of the radius bone sufficed to show that the animal was a rorqual, "Finner" or "Finback" of seamen (*Balænoptera* of zoologists), as distinguished from a "Hunchback" (*Megaptera*), and still more from a finless or "right whale" (*Balæna*); but in the remarkable slenderness of the lower jaw it differed much from all previously known rorquals, for which reason the name *Balænoptera indica* was proposed to distinguish the particular species. Further reasons and arguments were adduced to prove that the great whale of the Indian Seas was a true rorqual, as distinguished from other generic forms of *Balænidæ*; and Mr. Blyth was of opinion that no other species of large whale existed in the Indian Ocean north of the equator. From the concurrent testimony of many trustworthy observers, he remarked that it possessed a high and conspicuous dorsal fin, which again is a marked characteristic from which the name "*Balænoptera*" is derived. He stated that it was not unfrequently observed in and about the Bay of Bengal, often in numerous herds; yet the only additional notice he had met with of these huge creatures consists of a statement in the Rev. J. Mason's work on the 'Natural History of the Tenasserim Provinces,' that, "The whale is found south of Mergui, and Capt. Lloyd named a bay a few miles south of the parallel of 12° north,

'Whale Bay,' from the circumstance, he says of its being resorted to by numerous whales, and its being the only part of the coast where I have seen them." A proper description of the fresh animal is a *desideratum*.—*Communicated by the Editor of the 'Indian Field.'*

Occurrence of the Peregrine Falcon (Falco peregrinus) in Derbyshire.—On Saturday last, as one of my sons was shooting rabbits on a moor, about a mile from hence, he saw a large hawk chasing some wood pigeons; after flying off some distance it returned and hovered over a spaniel he had with him, as if inclined to attack it; being within distance he fired, and brought it screaming to the ground, but, not being dead, it fought both him and the dog most furiously. It proved to be a most rare bird in these parts, a female *Falco peregrinus*, a fine specimen and in excellent preservation. I am not aware that it has been ever before shot in this county.—*Henry R. Crewe; Breadsall Rectory, near Derby; October 25, 1859.*

A Peregrine Falcon (Falco peregrinus) killed by the Telegraph-wires.—A fine young female peregrine, a bird of the year, was picked up one day last week on the Yarmouth line, near Needham, having one wing broken at the shoulder-joint, and a deep cut at the base of the upper mandible, from coming in contact with the wires of the telegraph. The poor bird, when found, was still alive, but did not long survive its injuries; whether these were received from coming in contact with the wires in the dark, on its nocturnal migration, as occurs frequently with the snipe, plover and woodcock at this season of the year, or from its too impetuous chase of some intended victim during the day, must remain a matter of speculation for naturalists.—*H. Stevenson; Norwich, October 22, 1859.*

Disappearance of Swallows and Martins.—These birds were late in leaving this season: about the 16th of October nearly a hundred martins were round the house I live in, and on the 17th none were to be seen. On Monday, October 24th, at 7 A.M., about fifty martins returned and surrounded the house, and kept flying at a nest in the corner of one of the windows; they all disappeared in about four hours: the morning of their return was very frosty, with the thermometer at 23°. Is it usual for them to stay so late? Mr. Whistlecraft, in his 'Weather Almanac' for 1860, repeats his observation of the late departure of these birds as the sign of mild weather during winter, and also observes that the house swallows during the last three hot summers have forsaken the close chimneys and built more in open places.—*H. W. Newman; Hill Side, Cheltenham, November 9, 1859.*

Variety of the Common Nightjar (Caprimulgus europæus).—On the 29th of September another beautifully pied variety of the nightjar was killed near Holt, the same locality in which the specimens which I recorded in the 'Zoologist' for 1856 and 1858 (Zool. 5278, 6242) were also obtained. In its singular variation of plumage this bird, a female, strongly resembled the previous examples, having the wings, throat and upper part of the breast, with the vent and under tail-coverts, pure white. This singular freak of nature in a species rarely subject to any deviation from its normal colouring is the more remarkable from the birds having been met with in three successive seasons in the same neighbourhood, and, although strictly migratory in their habits, being undoubtedly the offspring of the pair obtained in 1856, thus assuming the nature of a permanent variety.—*H. Stevenson; Norwich, October 22, 1859.*

Occurrence of the Rednecked Phalarope (Phalaropus hyperboreus), Redthroated Diver (Colymbus septentrionalis) and Merlin (Falco aesolon) in Norfolk and Suffolk.—

A specimen of the rednecked phalarope, in winter plumage, was shot at Hickling on the 22nd of September, and on the 10th of October a very perfect adult male merlin was killed at Malton, in this county: these birds, in their adult stage, have become, of late years, very scarce. A male redthroated diver, assuming the winter plumage, but still retaining a broad patch of red on the throat, was killed off Lowestoft, about the 14th of this month.—*Id.*

Occurrence of the Snow Bunting (Emberiza nivalis) in the Isle of Wight.—On the 28th of October I saw several snow buntings on our downs: they were very active, running on the ground much like the meadow pipit; they were exceedingly tame, and I approached within twenty yards of them: when disturbed they flew but a very short distance, always pitching on the ground again, and though there were several low bushes and fences close by they did not attempt to alight upon them. I returned home for my gun, but only got one specimen. Another was shot by a visitor staying here, which I preserved. I have searched several times since for them, but they have quite disappeared.—*H. Rogers; Freshwater, Isle of Wight.*

Occurrence of Pallas's Sand Grouse (Syrrhaptes paradoxus) in Jutland.—It will, I am sure, interest the readers of the 'Zoologist' to learn that a third specimen of that rare and curious bird, Pallas's sand grouse (*Syrrhaptes paradoxus*), was obtained during the past summer in Western Europe. By the kind permission of Professor Reinhardt I am enabled to inform British ornithologists that an adult male of this species was shot, on the 23rd of July last, near Hobro, in Jutland (Jylland), and it is stated that another example was observed, but not killed, about the same time, some few miles from the same locality. I had the opportunity, through the Professor's favour, of examining the specimen obtained, which is now in the Museum of the University of Copenhagen, and is a remarkably fine one. I am glad to say that the sternum of this example was carefully preserved by the bird-stuffer, as was done in the case of a specimen killed in Wales (Zool. 6728), though, unfortunately, not in that of the Norfolk bird (Zool. 6764).—*Alfred Newton; November 10, 1859.*

Occurrence of the Little Bustard (Otis tetrax) near Oxford.—I half expected that some one would have recorded in the 'Zoologist' the interesting occurrence of the little bustard in the neighbourhood of Oxford, at the beginning of this last October; but, as I have seen no notice of the fact in the last number of this periodical, I venture to give information respecting this by no means common visitant. The bird in question was shot (by a gentleman of St. John's College) not far from Oxford, and is a very fine specimen of a young male, which has very nearly completed its autumn moult. I saw it at the bird-stuffer's just after it had been mounted.—*Murray A. Mathews; Merton College, Oxford, November 11, 1859.*

Rare Birds driven Inland by the recent Great Storms.—After the great storms which have recently been prevalent all over the country, one expected to hear of some rare birds having been driven inland by stress of weather. I was therefore not surprised to see a specimen of Leach's petrel, which had been killed in Blenheim Park. I have also heard from home that many petrels, both Leach's species and the common stormy petrel, have been picked up exhausted in the neighbourhood of Barnstaple; and also that a very fine adult specimen of the great northern diver (still in summer plumage) had been brought to the bird-stuffer by a man who found it dead by the river-side.—*Id.*

Birds of Canada observed near Kingston during the latter part of the Summer and in the Autumn of 1857. By Captain HENRY HADFIELD.

BEFORE proceeding to enumerate the different species, I would remark that the latter part of the summer, for there is neither autumn nor spring in Canada, is a bad time for carrying on observations on birds, or for procuring specimens; for, the trees being then clothed in a dense and all but impenetrable foliage, it is difficult to descry them or watch their movements; moreover, many of the specimens, when procured, are of little value, the plumage being almost invariably imperfect, and not unfrequently in a very ragged state; for instance, the meadow lark (*Alauda magna*), found in the long grass, were scarcely able to rise above it, and then their flight was not sustained. On inspection many of the quills were wanting, and the rest of various lengths, all imperfect. The tail-feathers were in the same plight. The ornithologist of America has in one respect a great advantage, for the birds of that Continent are, I think, much easier of approach than are those of Europe, apparently still unconscious of the destructive powers and propensities of mankind.

Robin (*Turdus migratorius*). August. This most common but beautiful bird, in size intermediate between the blackbird and mavis, is so widely spread over the face of the country that in whatever direction a person goes he is sure of falling in with it; and so tame and fearless are they that even when disturbed they do not conceal themselves among the foliage, but with a low, direct flight often alight within gun-shot. As far as I have been able to observe, this bird in its habits and manners bears a stronger resemblance to the fieldfare and redwing than to either the blackbird or the thrush, being commonly found on the ground. In plumage it also somewhat resembles the former. Though it has a red breast, the familiar name of robin was doubtless bestowed on it on account of its great tameness and sociability. They are not at present in song, but the notes of a caged robin I thought somewhat like that of the blackbird, but far less powerful. As an article of food they are apparently prized by the Indians, for a sick squaw who I found camped in the woods was very grateful for a robin or two that I gave her. The northern migration of this species must be very extensive. I found great numbers towards the end of July, near St. John's, Newfoundland.

Redheaded Woodpecker (*Picus erythrocephalus*). August. Shot

a young male and female of this common species (the first birds I have procured, with the exception of the robin). The male is $9\frac{1}{4}$ inches in length, and 17 inches in extent of wings. Bill along the ridge, 1 inch. Tarsus, 1 inch; thigh, $1\frac{1}{2}$. Inner hind-toe, 4-tenths of an inch; claw, $3\frac{1}{2}$ -tenths: outer toe, 3-fourths of an inch; claw, 4-tenths. Inner fore-toe, 6-tenths; claw, 3-tenths: outer toe, 8-tenths; claw, 4-tenths. Bill bluish black, but of a horn-colour at the base and on the lower mandible. Head black, spotted with red and gray; throat gray, spotted with black; there are two red patches on the sides of the head, a streak of the same colour beneath the eyes, and a small spot over them and at the nape. Back black; feathers tipped with gray; there is also a line of the same both over and under the eye, extending towards the nape. Nostrils oval, partly concealed by black bristles. Upper tail-coverts white and rather elongated. The tail is $3\frac{1}{4}$ inches long, rounded; it has twelve feathers; the lateral ones are only an inch in length, weak and incurved, white on the outer webs, black on the inner, except at the extremities, which are white. Four centre feathers black and doubly pointed; the second external feather white on the inner web for one-third its length, and on the outer margin throughout, point yellowish white; the third is white on the inner web at the base, yellowish brown at the tip; the fourth has a small white spot on the inner web at the base, and is light brown at the extremity, which is forked: the whole of the feathers are arched, and the centre ones very stiff. Wing has nineteen quills: first, black; from second to seventh inclusive, tipped with gray, and partially margined with the same on the outer webs; eighth, slightly tipped with white, and there is a small spot of the same on the margin of the inner web, about half-way up; ninth, white at the point, broadly margined with the same on the inner web; tenth, black at the base and on the outer web, barred with black on the inner towards the extremity; eleventh, black at the base, with patches of the same on the outer web and at the extremity, and there is a narrow bar of black on the inner; from twelfth to seventeenth inclusive, the quills are black at the base, and there are spots of the black on the outer webs, with a bar of black across both webs; eighteenth, black on the outer web at the base, with three spots of the same higher up the web, two on the margin and one near the shaft, besides being barred with black on the inner; nineteenth, almost similar: the third quill is longest, second nearly equal, fourth little shorter, first 6-tenths of an inch shorter than the second. Primary coverts black, tipped and margined with gray. Secondary coverts black,

edged with gray. Legs and toes of a dull lead-colour, claws black. *Female* equals the male in size, but the colours are less bright, and there is no appearance of red about the head, and but one bar of black on the wing; and the black spots towards the base of the quills are small and irregular, and on some of the feathers there are none whatever. There is also more gray about the back, and on the margins of the primaries and lateral tail-feathers. The old birds took shelter in the hollow trunk of a tree. The nest was in a decayed branch, at no great height, the hole comparatively small and perfectly circular.

Song Sparrow (*Fringilla melodia*). August 16th. Was shown the nest of a little bird, which proved to be that of this species; it was placed in the forked branch of a willow, at three feet from the ground; it contained three spotted eggs, greatly resembling those of the house sparrow, but not so elongated; the nest (subsequently examined) is roughly and loosely put together; externally it is of coarse grass, with a considerable admixture of shavings arranged in alternate layers; internally it is composed of finer grasses, with a thin and partial lining of horse-hair at the bottom. Though the concavity is perfectly even and circular, externally the nest is somewhat elongated or pear-shaped, in consequence of the straws being for the most part so arranged that, after passing round the nest, all the ends are brought together both from the sides and bottom, forming an acute angle, the whole having the appearance of a racket. Internal diameter $2\frac{1}{2}$ inches, and it measures about $4\frac{1}{2}$ inches externally not including the projecting angle; it is $1\frac{1}{2}$ inch in depth internally, and about $3\frac{1}{2}$ inches externally. On the 31st examined one of the young ones, which I found had recently left the nest, though barely twelve days hatched; it was running swiftly about, but could not fly. Probably in consequence of being disturbed, this bird may, with the rest, have left the nest prematurely; it was, however, strong and active, so that I had some difficulty in capturing, and still more in retaining it in my hand, for unless tightly pressed it was sure to escape, and run mouse-like through the long grass, and its screeching soon brought both parents to the rescue. The male approached within a few yards of me, running and fluttering about with expanded wings and tail, emitting the while a sharp and angry note. The mouth of the nestling was of a purplish hue, as if stained by berries. This is a most common species.

American Night Hawk (*Caprimulgus americanus*). August 26th. Procured a handsome male of this common species. (For description see Zool. 5798).

Humming or Bird (*Trochilus colubris*). August 28th. Observed one hovering over the flower of a scarlet-runner. They are said to be common wherever flower-gardens abound, but I have seen but two or three of these solitary wanderers.

Goldfinch Yellow Bird (*Fringilla tristis*). August. This goldfinch in miniature is an elegant little bird, and, like its European relative, might be named the thistle finch, as the seeds of that plant form its chief food. It is seen flitting from thistle to thistle, and clinging to the capsules. The summer plumage of the male—black and yellow—is very brilliant; but after the autumnal moult it assumes its dusky green and olive hues; it is then not unlike the siskin, except in length of bill. It is a very common, tame and familiar species, and has a pleasing twittering song emitted on the wing, reminding one of our native songster. Length 5 inches. Extent of wings 9 inches. Fore-head black. Nape and back greenish yellow. Neck, breast and belly bright yellow. Under tail-coverts white. Under wing-coverts gray, tinged with yellow.

Cat Bird (*Turdus lividus*). August. Saw two or three of these birds, which, though smaller, are very like the common blackbird (of Europe) when seen at a distance, and, like that bird, it is shy and wary, concealing itself among low trees and bushes, but generally in wet or swampy ground. Its cat-like note I never heard. A female that I shot measures $9\frac{1}{2}$ inches in length; tail, 4 inches. Extent of wings, 12 inches. Upper mandible, $\frac{3}{4}$ of an inch from gape. Bill and head black; back dark ash-gray; throat, sides and whole of the under parts light ash-gray. The tail has twelve black feathers, margined with gray on the outer webs for two-thirds of their length, the centre ones longest, the rest regularly graduating, giving the tail a rounded form. The wing has nineteen quills, of a dark brown on the outer webs and light on the inner: fourth longest, fifth and sixth nearly of equal length; the first is but $1\frac{3}{4}$ inch in length, and two of the quills, about the centre of the wing, are short, new feathers. Upper wing-coverts dark brown in the centre, margined with gray. Under wing-coverts light gray. Under tail-coverts bright chestnut, the centre ones extending to half the length of the tail. Thigh, 1 inch $\frac{6}{10}$ in length. Tarsus, 1 inch $\frac{2}{10}$. Middle toe, $\frac{3}{4}$ of an inch. Inner toe, $\frac{1}{2}$ an inch; outer toe, $\frac{1}{2}$ an inch; back toe, $\frac{4}{10}$ of an inch. The legs, toes and claws are black.

Blueeyed Yellow Warbler (*Sylvia citrinella*). August. This beautiful but common little bird bears so striking a resemblance to the yellow wood wren (of Europe), that it was not until I had shot one and

examined it that I perceived the difference, which is but slight, the American willow wren being somewhat shorter and stouter, with more and brighter yellow on the plumage, besides having on the breast, sides and belly numerous longitudinal reddish brown streaks and spots. Having occasionally had several at a time in my garden I have had opportunities of observing their habits, which are similar to those of the wood wren. They frequent low and swampy grounds where the willow and other aquatic trees abound, among the higher branches of which they may be seen in perpetual motion, flitting among the foliage in quest of flies and other insects, and, like our own species, rarely pitching on the ground, and but for a few seconds at a time.

Wood Peewee Flycatcher (*Muscicapa rapax*). August. A common species. One shot by me measured 6 inches in length and 10 inches in extent of wings; mandible, $\frac{1}{2}$ an inch; tail, $2\frac{1}{2}$ inches, nearly even, and has twelve light hair-brown feathers; the wings are of the same colour, but the first primaries are slightly, the rest broadly, margined with white on the inner webs; under wing-coverts gray; under tail-coverts light brown, margined with white; upper wing-coverts brown, tipped with gray; throat and breast gray; belly white. There is a spot of gray beneath the eye. Mouth very large; the mandible 3-tenths of an inch wide at base. Thigh, $\frac{3}{4}$ ths of an inch in length; tarsus, 6-tenths of an inch; middle toe, $3\frac{1}{2}$ -tenths; claw, $1\frac{1}{2}$ -tenth. Inner toe, 2-tenths; claw, $1\frac{1}{4}$ -tenth. Outer toe, $2\frac{1}{2}$ -tenths; claw, $1\frac{1}{4}$ -tenth. Hind toe, 2-tenths; claw, $1\frac{3}{4}$ -tenth.

Green or Whitebellied Swallow (*Hirundo viridis*). August. This appears to be the most common species, but Wilson states that the brown swallow is more so, frequenting the houses, where they build under the eaves. One that I measured was $5\frac{3}{4}$ inches in length and $12\frac{1}{4}$ inches in extent of wings. Tail somewhat forked, $2\frac{1}{4}$ inches in length, and has twelve feathers. Bill black; head and back glossy green and blue; wings and tail brownish black. Throat white; breast tinged with gray; the rest of the lower parts pure white. Tarsus, $\frac{1}{2}$ an inch in length, bare of feathers.

Barn Swallow (*Hirundo americana*). August. Only less common than the preceding. It greatly resembles the European redfronted swallow. I observed them late in the season. The head and the whole of the back is of a glossy purplish blue. The chin, throat and forehead dark reddish brown. The belly, vent and under wing and tail-coverts light rufous. There is a narrow collar of blue encircling the lower part of the throat. The tail has twelve feathers, and is greatly forked, the exterior feather being 1 inch and 1-tenth longer

than the second. Tarsus, $4\frac{1}{2}$ -tenths of an inch. Wing from flexure $4\frac{3}{4}$ inches.

Spotted Sandpiper (*Tringa macularia*). August. Found a small flock of these birds on the sandy shores of Lake Ontario; secured two. Wilson remarks, "Mr. Pennant is of opinion that this same species is found in Britain; but neither his description nor that of Mr. Bewick will apply correctly to this." As my specimens differ somewhat, both in size and colour, from Wilson's, I shall endeavour to describe them rather more fully than I should otherwise have done. The latter author quotes an amusing anecdote with regard to this species:—"My venerable friend Mr. W. Bartram informs me that he saw one of these birds defend her young for a considerable time from the repeated attacks of a ground squirrel." Though I do not wish to call in question Mr. Bartram's statement, I am inclined to believe that the squirrel was endeavouring to drive away the sandpiper, for it seems very improbable that such a playful, nut-loving creature should so suddenly and unaccountably be transformed into a savage carnivorous animal. My two birds are so unlike, that I was inclined to believe they were distinct species, but possibly the white-bellied one—though the larger of the two—may be a young bird; it measures 8 inches in length. Extent of wings, $13\frac{1}{2}$ inches; from flexure, $4\frac{1}{2}$ inches. Thigh, $1\frac{1}{2}$ inch, bare for half its length. Tarsus, 1 inch. Middle toe, 9-tenths of an inch; claw, $1\frac{1}{2}$ -tenth; hind toe, 2-tenths; claw, $\frac{3}{4}$ -tenth; inner toe, 6-tenths; claw, $1\frac{1}{4}$ -tenth. Foot, webbed between middle and outer toe to first joint. Bill, 1 inch along the ridge. Upper mandible, dark horn-colour, except towards the point, which is black; lower mandible flesh-colour, all but the tip, which is dark brown. Head, and the whole of the upper parts hair-brown, with a reddish tinge; feathers dark on the shafts, tipped with rufous. Upper tail-coverts considerably darker than the back, very elongated, reaching to within half an inch of the extremity of the tail, which is considerably rounded, and has twelve feathers; centre ones longest; first lateral feather white, barred and spotted with black; second, dark brown, spotted with yellow, barred with black, and tipped with white; third, marked the same; fourth, white at the tip, with some black and reddish brown spots; fifth is also dark brown, but the point is rufous, and there are spots of the same, intermixed with black on the margins; sixth, similarly marked. Scapulars reach to within one inch of the extremity of the tail, and are of a glossy hair-brown, spotted and barred on the outer webs with black and pale yellow. Chin, throat and the whole of the under parts, except the breast, which is tinged with brown, pure white; the

under tail-coverts the same. Thigh white. First wing-primary black; second, slightly marked with white on the inner web; from third to ninth, inclusive, there is a large spot of white on the inner webs, extending from near the base to within an inch of the points, which are tipped with gray; the rest of the quills, excepting the four inner ones, which are black, tipped with white, are about half white from the base. Primary coverts black, with white points. Secondary coverts glossy reddish brown, barred with black. There is a white patch over the eye, extending to the nape, and a narrow dark brown line, commencing at the gape, passes through the eye and on to the nape, where it becomes gradually blended with the general plumage. There are on the head numerous minute longitudinal dark spots. The second, or spotted bird, is $7\frac{3}{4}$ inches in length and 13 inches in extent. Bill barely 1 inch. Upper mandible dark; lower reddish brown. Thigh, $1\frac{1}{2}$ inch. Tarsus, 1 inch. Inner toe, 6-tenths of an inch; claw, $1\frac{1}{4}$ -tenth of an inch; outer toe, 7-tenths; claw, $1\frac{1}{4}$ -tenth; middle toe, 8-tenths; claw, $1\frac{1}{2}$ -tenth; back toe very short. Head small; from forehead to nape, 3-fourths of an inch. Eye small and black. Throat and breast white, but speckled all over, the feathers being slightly tipped with black; the spots are very minute on the throat, but increase in size towards the chest. The sides are also spotted with black. Vent and under tail-coverts white; the two centre ones as long as the tail. Head, neck and back are of a glossy purplish brown. Tail has twelve feathers, lateral ones brown and white, spotted and barred with black; second dark brown, barred with black, and tipped with white; third and fourth similarly marked; fifth and sixth are darker. The first quill is the longest. This is a much darker bird than the former.

H. HADFIELD.

Capture of the new Snake, Coronella austriaca, at Ringwood.—I captured a specimen of the new British snake, *Coronella austriaca*, five or six years ago, in June, near Ringwood, Hants, when I was after *Eulepia cribrum*: I thought at the time I had something new, but, not taking much interest in the reptiles, it was put into spirits and forgotten till I saw Dr. Gray's notice in the 'Zoologist' (Zool. 6730). I have sent the specimen to the British Museum, so that any one may see it. If this species always accompanies the sand lizard (*Lacerta stirpium*), it may possibly be found nearer London, as I have found the sand lizard at Weybridge, Surrey.—*Frederick Bond*.

Larvæ of Acherontia Atropos.—I had brought to me, on the 22nd of October, a very fine larva of *Acherontia Atropos*: it is about six inches in length and as thick as my fore-finger, but it is a most extraordinary variety, being of an olive or brown

colour, with beautiful dark markings down the back, the two anterior segments white (inclining to pink), with a black stripe from the head to the third segment; then begins a series of lozenge-shaped markings, gray and black all the way down, spiracles black. It was found feeding on the common tea-tree (*Lycium barbarum*).—*J. M'Laren; Worley Barracks, Brentwood, October 25, 1859.*

Larva of Sphinx Convolvuli.—I found a larva, which I suppose to be that of *Sphinx Convolvuli*, on the 5th of October, in a stubble-field near this place. It was not feeding at the time, but I gave it *Convolvulus arvensis*; it did not seem to eat much, but went underground and died. The colour was dark chocolate-brown; the horn of exactly the same colour, smooth and slightly curved; the head was striped with yellowish white, and a waved band of the same colour extended the whole length of the body along the side just below the spiracles, which were black, enclosed in a light-coloured ring: on each side were seven oblique lateral stripes, nearly of the ground-colour, but no dorsal stripe.—*Henry Rogers; Freshwater, Isle of Wight, October 21, 1859.*

Larva of Sphinx Convolvuli.—"A larva, which I suppose to be that of *Sphinx Convolvuli*, was lately found near this place: it was about the same size as that of *S. Ligustri*; the colour dark olive-green, with an interrupted lateral white streak; there were also two or more dots on each segment; the horn smooth and curved. It fed sparingly on *Convolvulus arvensis*, but I did not observe that it ate *Calistegia Sepium*, with which I supplied it."—*Mr. W. H. Hayward, of Penzance, in a letter to E. Newman.*

Larva of Sphinx Convolvuli.—I am indebted to Mr. Doubleday for the loan of a specimen of this rare larva: it was found in a potato-field in Hampshire. The colour is almost black, and the caudal horn entirely so: below the spiracles on each side is a distinct, rather broad and somewhat interrupted white stripe; there is no indication of the oblique lateral stripes so common in the true *Sphinges*; the horn is shorter than in *S. Ligustri*, but bent in a similar manner: each segment is distinctly divided into eight rings by the same number of longitudinal furrows: there is no evidence as to its food.—*Edward Newman.*

Larvæ of Sphinx Convolvuli.—Last autumn, when at Deal, I had three larvæ of *Sphinx Convolvuli* brought to me, on the 7th of September, by a boy working in a potato-field, who told me they fed on privet. I of course tried this, but they refused it; I then gave them *Convolvulus arvensis* and *Sepium*, both of which they devoured greedily, and in a few days went down in the sand, with which the box was filled. I was obliged to dig them up when I left Deal, and found two had changed to pupæ; the third had died. The larva considerably resembles that of *S. Ligustri*, but is of course larger and the colour is much duller, not the semi-transparent look which the privet caterpillar has; the side stripes are black, and two of them somewhat broken up into lines of spots; below the black stripes one had pale yellow, about the same breadth as the black; head with a black stripe on each side; the thoracic segments entirely green; legs black; horn orange tipped with black; spiracles black, edged with orange and again surrounded with black. They are not night-feeders, but very lazy, and I never saw them assume the *Sphinx* posture. I went to the place where the boy found them, but the field was all ploughed up and nothing green left: his first statement that they fed on privet turned out to be the result of confounding them with the privet larvæ, which he had previously found.—*J. T. Syme; 12, Gordon Street, W.C., November 7, 1859.*

Description of the Larva of *Ennomos illustraria*.—Larva mulberry-brown, head paler; bifid humps on the fifth, sixth, eighth and ninth segments; there are, properly speaking, but two humps, as they are on the segmental divisions; thus the hump on the fifth and sixth segment stands just on the ring between the two segments, one part in the fifth and the other in the sixth; so likewise in the eighth and ninth segments. The pupa is not truly subterranean, but generally found spun up between two leaves.—*G. F. Mathews; Raleigh House, near Barnstaple.*

***Sterrhia sacraria* at Croydon.**—A splendid specimen of *Sterrhia sacraria*, taken at Croydon on the 5th of October, was obligingly brought to me on Thursday evening for exhibition. It was attracted by a gas-lamp, and on the following evening a fine specimen of *Heliothis armigera* came to the same lamp. Several other specimens of *S. sacraria* have occurred in different parts of the South of England during the past month.—*Edward Newman.*

Description of the Larva of *Fidonia piniaria*.—Larva whitish green; dorsal line rather broad, white; subdorsal line pale bluish white; spiracular line yellow, spiracles orange; belly streaked alternately with light and dark green; head rather large in proportion to the body. The segmental divisions of the body are conspicuously marked with pale whitish green.—*G. F. Mathews; Raleigh House, near Barnstaple.*

Description of the Larva of *Timandra imitaria*.—Larva very long and slender, brownish ochreous, anal segment dark umber-brown. Feeds freely on *Senecio vulgaris* or any species of *Galium*.—*Id.*

Second brood of *Zygæna Lonicera*.—I took a specimen of *Zygæna Lonicera* flying in the sunshine on the 12th of October; it was evidently, from its perfect condition, just fresh from the pupa. Is not this a rather extraordinary capture for the time of the year? This specimen must have been produced from eggs laid last May or June.—*Id.*

Description of the Larva of *Eupithecia sobrinata*.—This larva is rather variable in appearance. The ground-colour is either dark green or yellowish red, with a series of rust-coloured dorsal blotches, intersected by a central dorsal dark green horizontal line, and bordered on either side by a yellowish one. These blotches generally disappear on the posterior segments, and are sometimes wanting altogether. Spiracular line waved, pale yellow or whitish. Belly with a whitish central horizontal line. Feeds on juniper. I have found it tolerably common on old trees in gardens and shrubberies in Derbyshire. It is full fed at the end of May and beginning of June, and the perfect insect appears in July. Pupa enclosed in an earthen cocoon or a slight web among the stalks. Head, thorax and wing-cases dark green; abdomen yellowish.—*H. Harpur Crewe; Shooter's Hill, Kent, November 1, 1859.*

Description of the Larva of *Eupithecia exiguata*.—This larva somewhat resembles that of the little blue Emerald (*Iodis lactearia*), and appears at the same time. It is long, slender and tapering. Ground-colour dark green, with a central row of small dull red lozenge-shaped dorsal spots, connected by a central dorsal line of the same colour. Spiracular line red, bordered with yellow. Segmental divisions yellowish. The dorsal blotches are often wanting on the anterior segments, and their place supplied by a greenish line. In the centre of each dorsal blotch a small yellow spot. Feeds, in September and October, on barberry, whitethorn, black currant, ash, alder and sallow. Pupa enclosed in an earthen cocoon; long, slender and tapering. Wing-cases dark olive-green. Thorax and abdomen dusky olive. Abdominal divisions very conspicuous yellow.—*Id.*

Additional Remarks on the Larva of Eupithecia assimilata.—I feel that, in justice to Mr. Gregson, I ought to make a few additional remarks on the larva of *Eupithecia assimilata*. A few days after writing my reply (Zool. 6735) to Mr. Gregson's critique (Zool. 6695) on my description of this larva (Zool. 6579), I found, upon examining the larva which I had lately taken, that a few of the smaller ones had moulted and assumed some dorsal dusky lozenge-shaped spots, and I subsequently met with others upon the black-currant trees in the garden. About the same time I happened to pay Mr. Greene a visit, and found that he had also met with this variety; and a few days afterwards Mr. Gregson was kind enough to send me four or five of his dorsally-blotched larvæ, which precisely corresponded with those I had taken. It is quite clear, therefore, that a dorsally-marked larva does occur, but my observations lead me to feel sure that this is rather the exception to the rule than otherwise. Last autumn I took nearly fifty larvæ. Not a single one had any dorsal lozenge-shaped spots at all, and only about half a dozen had a few small black dorsal specks, about the size of a pin's point. This autumn one of my brothers and myself, by diligent searching, took about two hundred larvæ off black currant and wild hops (upon which they feed equally freely), and out of this number about thirty were dorsally blotched. Neither Mr. Doubleday nor Mr. Bond had ever seen this variety till I showed and gave them specimens. I leave the readers of the 'Zoologist' to draw what inference they please from these facts. The conclusion at which I have arrived is this: that, though a dorsally-blotched variety most undoubtedly occurs, yet that this is rather an exception to the rule than otherwise, and that the plain green larva is the typical form.—*Id.*; November 8, 1859.

Description of the Dorsally blotched Larva of Eupithecia assimilata.—Till the last moult uniform pale green; afterwards with a chain of rusty brown dorsal spots running from tip to tail, and intersected and united by a central dorsal line: ground-colour dirty yellowish green. The dorsal spots confluent on the anterior and posterior segments; bordered on either side by a dusky line. Sides suffused with dusky reddish brown, and streaked with waved lines of the same colour. Belly greenish. Body covered with small white tubercles and studded with a few short white hairs. Segmental divisions orange. Head greenish, marked with black. Feet on black currant and wild hops in September and October.—*Id.*

Reply to Mr. Crewe's Note on the Larva of Eupithecia assimilata.—Mr. Crewe writes (Zool. 6735) to prove that I am in error in saying there are dorsally lozenge-marked larvæ of *Eupithecia assimilata*, and, it would seem, proves to his own satisfaction there are no such things, at least in his own neighbourhood. I have had the pleasure of sending him specimens of such dorsally-marked larvæ, and of course expected he would set me right with the readers of the 'Zoologist,' but in his reply to my letter and box containing the said dorsally-marked larvæ, he says, "Your dorsally-marked larvæ were not a surprise, for a few days after Mr. Greene and myself had written to the 'Zoologist' I found a few of the dorsally-blotched larvæ, and upon going over to spend a day with him at Cubley I found he had done the same. We both agreed to keep them separate until the perfect insect appeared, and then, in justice to you, to publish our experience in the 'Zoologist.'" Thus, it would seem, though he has both seen such lozenge dorsal-marked larvæ from me and absolutely found such in his own neighbourhood,—where I knew them to occur, having taken them at Ashburn, at Mayfield (in the late Tom Moore's garden), and at Burton-on-Trent, on the Ashby-de-la-Zouch side of the river, all of which places, I take it, are in his

neighbourhood,—he agrees with Mr. Greene to put off the evil day until next year, when the question might have been so easily settled now without this note from me. As to Mr. Greene's bilious letter (Zool. 6735), I who have spent many years of my life in successfully separating the larvæ of the Tineina can well afford to live down the "clap-trap" of any writer who confessedly cannot separate the larvæ of two of our finest Orthosidæ (see Zool. 6734), and only notice his communication to say that I never asserted that the larva of *E. assimilata* was one inch and a half long (see Zool. 6695), and regret he should have led the readers of the 'Zoologist' to think I did say so.—*C. S. Gregson; Spring Hill, Fletcher Grove, Stanley, October 17, 1859.*

The Larva of Eupithecia assimilata.—In justice to Mr. Gregson, I think it right to state that larvæ have been sent to me (of the above insect) possessing dorsal markings such as he describes, and that I have also taken a few in this neighbourhood. In justice to myself I must add that, up to the time at which I sent my remarks to the 'Zoologist,' I had neither seen nor heard of such a variety.—*J. Greene; Cubley Rectory, Doveridge, Derby, November 10, 1859.*

Occurrence of Heliothis armigera at Sugar, Ivy, &c.—My entomological friends have been unusually successful in taking this rarity during the past autumn. Mr. Bond took three one evening; Dr. Allchin two; and Mr. Wright one,—this last in the old locality for *Phlogophora empyrea*. In the 'Intelligencer,' Mr. W. D. Crotch records the capture of two specimens at Weston-super-Mare; Mr. Tompkins one near Worthing; Mr. Thorncroft five near Brighton; and Mr. Stewart two near Torquay: the dates are from the 1st to the 25th of October.—*Edward Newman.*

Occurrence of Phycis contubernella in Dorsetshire.—On examining lately some Micro-Lepidoptera, taken during the past summer by the Rev. G. C. Green, of Hamworthy, one among them, a "knot-horn," struck me as a novelty; I accordingly submitted it to Mr. Bond's inspection, and he and I have come to the conclusion that it is identical with *Phycis contubernella* of Hübner, and not hitherto recorded as British. It is as large as *Phycis Roborella*, handsomer and more distinctly marked, but bears no resemblance to it or any other British species of the genus. Its natural position in the British list would appear to be next after *P. ornatella*.—*O. Pickard-Cambridge; Southport, Lancashire, October 24, 1859.*

Occurrence of Diachromus germanus at Hastings.—Mr. Wilson Saunders has obtained a specimen of this somewhat doubtful native at Hastings: the locality does not seem quite satisfactory, but it is sufficiently so to induce our ardent collectors to search thoroughly: may their efforts be successful. Dr. Power has opened up to us a mine of *Drypta emarginata*, *Polystichus fasciolatus* and *Lebia crux-minor*, and by his unexampled liberality has made these insects comparatively common in our collections.—*Edward Newman.*

Capture of Polystichus fasciolatus in Sussex.—About a fortnight since Mr. Wilson Saunders was kind enough to describe to me the locality in which he had met with *Polystichus fasciolatus*, an insect which many years ago was once taken in considerable quantity by Mr. Hewitson, at Southwold, but of which, since that time, only isolated specimens have occurred, and that very rarely. I accordingly took a trip by an excursion train to the neighbourhood he mentioned, and was fortunate enough to secure twenty-three specimens. The locality is apparently a very circumscribed one. It was lurking under stones and bricks, and seems to me to be fond of insinuating itself between the stones and earth in dryish places. I have kept some of them alive, and they are still flourishing in a tumbler with a piece of turf, &c., in it: its habits

appear to me to be nocturnal: if the insect is upon the surface, the moment it is exposed to the light it rushes down and takes refuge in a crack in the turf or at the bottom, between the turf and the glass, and never seems to run about in the light if it can help it. I suspect that it would be found roving about at night, if searched for by the aid of a lantern. It nibbles at pieces of meat which I put into the glass, and when the turf becomes dry sucks apparently with avidity any moist substance introduced. Its habits are very like those of *Lebia crux-minor* and *Drypta*, which I formerly kept for some two or three months in the same manner, but they do not show the tendency to congregate and creep into the same hole which I observed in *Drypta*.—*J. A. Power*; 52, *Burton Crescent*, October 26, 1859.

Occurrence of Quedius auricomus at Paisley.—Mr. Morris Young, of Paisley, has discovered a habitat near his home for this beautiful *Brachelytron*: it is adorned with two patches of golden pile, on the exposed part of each abdominal segment, and by this very conspicuous character may be distinguished at a glance from every species of *Quedius* with which we are acquainted. It was first recorded as British in the first volume of the '*Entomologist's Annual*.'—*Edward Newman*.

Occurrence of Latridius nodifer and Corticaria borealis in the North of England.—I captured, about the middle of October last, a single specimen of *Latridius nodifer*, *Westwood*, and a long series of *Corticaria borealis*, *Wollaston*, by tearing up the patches of *Convolvulus arvensis* growing on the sea-banks, and shaking them over a sheet of paper.—*Thomas John Bold*; *Angas' Court, Bigg Market, Newcastle-on-Tyne*, November 10, 1859.

Capture of Vespa arborea in Cumberland.—In working up my wasps I find several females of *Vespa arborea*, *Smith*, all captured in Cumberland, during the month of July. When there in April, May and June, I invariably took all female wasps, in hopes of finding *V. arborea*, but, after the most careful examination, I cannot find that I have taken it at any other time than in July, when the females were certainly by no means rare. Can it differ so much from its fellows as not to appear till mid-summer?—*Id.*; November 18, 1859.

The Hatching of the Larva of a Chrysopa.—"Twenty eggs of a species of *Chrysopa*, which hatched on the 20th of June, have afforded to me a different result than that which Schneider and others have mentioned. Thus instead of, as with them, a smaller, rounder top of the egg being loosened, there was seen in each egg a straight slit, extending nearly half its length, not however quite reaching to the micropyle, and at the upper end of this slit was a shorter transverse, sidelong fissure, through which the exit of the larva was made. The larva cast its skin in the act of exclusion, and left behind it in the cast skin the saw with which (as in *Osmylus*) the slit was made. The saw is nearly in the form of a carpenter's axe, but having a more curved edge, which, beneath, is drawn out at one end to a point, and is rather irregularly furnished with sharp teeth. The upper end of the edge forms a peculiar round, projecting, sharper toothed flap. The young larvæ did not burst direct from the eggs, but crawled down along the thread. It appears to be a general law that the larvæ cast their skins in the exclusion from the egg, and leave the skin in the slit in the egg, as I have before attentively observed in *Osmylus*." The above very interesting note by Dr. Hagen appears in the last part of the Stettin '*Entomologische Zeitung*,' and may not, except in the English dress, meet the eyes of many readers of the '*Zoologist*.'—*J. W. Douglas*; *Lee*, November 14, 1859.

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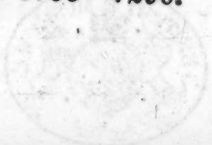
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